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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,693	03/16/2004	Gregory J. Peterson	FUT5024.04A1	3786

8156 7590 04/26/2007  
JOHN P. O'BANION  
O'BANION & RITCHEY LLP  
400 CAPITOL MALL SUITE 1550  
SACRAMENTO, CA 95814

EXAMINER
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CHAET, MARISSA W

ART UNIT	PAPER NUMBER
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1722

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/26/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/802,693

Applicant(s)

PETERSON ET AL.

Examiner

Marissa W. Chaet

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 4/11/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 87-97 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 87-97 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 87-89, 91-93, 95-97 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamilton (WO 94/07688).
3. Regarding claim 87, Hamilton teaches a compression conveyer screw assembly for transporting and compressing various types of waste material, such as discarded packaging material, or corrugated cardboard. See page 1, lines 5-30. The assembly includes: (1) housing with an inlet end and tapered outlet end; (2) an opening adjacent to the end of the housing; and (3) a compression conveyer screw rotatably disposing with the housing, where the screw is composed of a helical blade with a plurality of flights. See Fig.1; pages 20-24.
4. Regarding claim 88, Hamilton teaches a helical blade with a decreasing diameter toward the outlet end of the housing, where the lengths of the flights decrease toward the outlet end of the housing. See Fig. 1, 1A, 7; page 21, line 39 – page 22, line 21.
5. Regarding claim 89, Hamilton teaches a log die attached to the outlet end of the housing. See Fig. 1, #10. In this case, the die is represented as the nozzle. See Fig. 6; page 23, line 33 – page 25, line 33.

6. Regarding claim 91, Hamilton teaches housing that includes a circular passageway having rifling. See Fig. 1, #6, 22; page 21, lines 4-17.
7. Regarding claim 92, Hamilton teaches cardboard segments that are compressed to a ratio of about 7 or 8:1. See page 23, 17-32.
8. Regarding claim 93, Hamilton teaches means for rotating the compression conveyor screw. See Fig. 1, #60, 66; page 25, line 34 – page 26, line 15.
9. Regarding claim 95, Hamilton teaches means for segmenting the composite extrusion into individual sections. See Fig. 1, #220; page 31, lines 4-12.
10. Regarding claim 96, Hamilton teaches a helical blade that includes a diameter that decreases towards the outlet end of the housing. See Fig. 1, 1A, 7; page 21, line 39 – page 22, line 21.
11. Regarding claim 97, Hamilton teaches flights of the helical blade that decrease in length toward the outlet end of the housing. See Fig. 1, 1A, 7; page 21, line 39 – page 22, line 21.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 90 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton (WO 94/07688) in view of Ronden (US 3,726,651). Hamilton does not teach a log die that includes at least one longitudinal groove. However, Ronden teaches a log die with

at least one longitudinal groove. See Fig. 4; col. 4, lines 19-66. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a die with grooves to produce a log with grooves, as suggested by Ronden, to increase the surface area of the log, thereby promoting good mechanical properties and burning characteristics.

14. Claim 94 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton (WO 94/07688) in view of Weber (US 2,791,802). Hamilton teaches a gearbox connected to a drive motor as means for rotating the conveyor screw, but not a spur gear. See Fig. 1, #60, 66; page 25, line 34 – page 26, line 15. However, Weber teaches a spur gear as means to rotate a conveyor screw. See Fig. 1, #63, 64; col. 3, line 67 – col. 5, line 2. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a spur gear, as suggested by Weber, to rotate the shaft and blade.

### ***Response to Arguments***

Applicant's arguments filed April 11, 2007 have been fully considered but they are not persuasive.

Applicant notes that the instant invention is configured to orient and align the waste material in a circumferentially-disposed manner and to move the waste material forward. However, Examiner does not see any claimed structural differences between Applicant's invention and Hamilton (WO 94/07688). Hamilton also discloses a circular passageway and a conveyor screw that moves the waste material forward, and because Hamilton discloses the same claimed structure, it would be capable of

orienting and aligning the waste material segments in a circumferentially-disposed manner about the periphery of a compression conveyor screw and move the segments forward while the segments are being disposed horizontally. Furthermore, the amendment to claim 1, stating that the housing and screw "are configured to orient and align the carboard . . ." does not further limit the structure of the invention.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa W. Chaet whose telephone number is 571-272-8094. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on 571-272-1316. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MWC  
April 23, 2007

*Tim Heitbrink*  
TIM HEITBRINK  
PRIMARY EXAMINER  
GROUP 130  
4-24-07